WHAT IS CLAIMED IS:

1. A marker layout method for laying out markers in a real space as position indices upon presenting a mixed reality space, comprising the step of:

laying out the markers to have a positional relationship that allows a given player not to observe markers to be used by only another player when a plurality of players who observe the mixed reality space within different movable ranges observe the mixed reality space.

2. The method according to claim 1, wherein a visible feature of the markers to be used by only the other player is similar to a visible feature of the markers used by the given player.

3. The method according to claim 2, wherein the visible feature includes at least one of color, texture, shape, and size of the marker.

4. The method according to claim 1, wherein the markers to be used by only the given player are laid out at positions hidden by real objects when the markers are observed from the other player.

5. The method according to claim 4, wherein the real objects are laid out for an application that uses the mixed reality space.

6. The method according to claim 1, wherein the markers to be laid out include markers shared by a plurality of players.

7. The method according to claim 1, wherein the markers have a common color.

8. A mixed reality apparatus for computing and/or correcting location/posture information of a player using markers laid out by a marker layout method of claim 1.

9. A computer readable storage medium which stores a marker layout program for laying out markers in a real space as position indices upon presenting a mixed reality space, storing:

a program code of laying out the markers to have a positional relationship that allows a given player not to observe markers to be used by only another player when a plurality of players who observe the mixed reality space within different movable ranges observe the mixed reality space.

10. A mixed reality apparatus for making a player experience mixed reality by making the player observe a mixed reality space image obtained by mixing real and virtual spaces,

markers serving as position indices being laid out in the real space,

said apparatus comprising:

marker detection means for detecting the markers from image data obtained by sensing the real space from a substantially viewpoint position of the player; and

mixed reality space image generation means for generating the mixed reality space image to be observed by the player, so the player observes virtual object images that do not include any images of the markers in surrounding regions (marker regions) including markers in the image data.

11. The apparatus according to claim 10, wherein said mixed reality space image generation means substitutes or overlays images of the marker regions by predetermined virtual object images.

12. The apparatus according to claim 11, wherein said mixed reality space image generation means substitutes or overlays an image of a region including all the detected markers by a predetermined virtual object image.

13. The apparatus according to claim 11, wherein the predetermined virtual object images are plane patches with the same or similar texture, size, location and posture of the marker regions before the markers are laid out.

14. A mixed reality space image generation method for generating a mixed reality space image which makes a player experience mixed reality by mixing a real space

in which markers serving as position indices are laid out, and a virtual space, comprising:

the marker detection step of detecting the markers from image data obtained by sensing the real space from a substantially viewpoint position of the player; and

the mixed reality space image generation step of generating the mixed reality space image to be observed by the player, so the player observes virtual object images that do not include any images of the markers in surrounding regions (marker regions) including the markers in the image data.

15. The method according to claim 14, wherein the mixed reality space image generation step includes the step of substituting or overlaying images of the marker regions by predetermined virtual object images.

16. The method according to claim 14, wherein the mixed reality space image generation step includes the step of substituting or overlaying an image of a region including all the markers in the image data by a predetermined virtual object image.

17. The method according to claim 15, wherein the predetermined virtual objects are images are plane patches with the same or similar texture, size, location and posture of the marker regions before the markers are laid out.

18. A computer readable storage medium that stores a program which can be executed by a computer, making the computer which executes the program function as:

a mixed reality apparatus for making a player experience mixed reality by making the player observe a mixed reality space image obtained by mixing a real space in which markers serving as position indices are laid out, and a virtual space, comprising:

marker detection means for detecting the markers from image data obtained by sensing the real space from a substantially viewpoint position of the player; and

mixed reality space image generation means for generating the mixed reality space image to be observed by the player, so the player observes virtual object images that do not include any images of the markers in surrounding regions (marker regions) including the markers in the image data.

19. A computer readable storage medium which stores a mixed reality space image generation program for generating a mixed reality space image which makes a player experience mixed reality by mixing a real space in which markers serving as position indices are laid out, and a virtual space, storing:

a marker detection program step of detecting the markers from image data obtained by sensing the real

space from a substantially viewpoint position of the player; and

a mixed reality space image generation program step of generating the mixed reality space image to be observed by the player, so the player observes virtual object images that do not include any images of the markers in surrounding regions (marker regions) including the markers in the image data.

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